



sl

RAW SEQUENCE LISTING **ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/806,368A
Source: PCT09
Date Processed by STIC: 4/22/02

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name,
Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two,
2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office,
Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202



Does Not Comply PCT09
Corrected Diskette Needed

RAW SEQUENCE LISTING : DATE: 04/22/2002
PATENT APPLICATION: US/09/806,368A TIME: 14:21:00

Input Set : A:\447.001.txt
Output Set: N:\CRF3\04222002\I806368A.raw

W--> 6 WO 00/21998 PCT/IB99/01621
W--> 8 1
13 <110> APPLICANT: Hoechst Marion Roussel
15 <120> TITLE OF INVENTION: MATURE PROTEIN HAVING ANTAGONIST ACTIVITY AGAINST BONE
16 MORPHOGENETIC PROTEIN.
18 <130> FILE REFERENCE: JH98K011 PCT SEQUENCES IN ENGLISH
C--> 20 <140> CURRENT APPLICATION NUMBER: US/09/806,368A
C--> 21 <141> CURRENT FILING DATE: 2001-03-28
23 <150> PRIOR APPLICATION NUMBER: 10-288103
24 <151> PRIOR FILING DATE: 1998-10-09
26 <160> NUMBER OF SEQ ID NOS: 7
28 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

30 <210> SEQ ID NO: 1
31 <211> LENGTH: 119
32 <212> TYPE: PRT
33 <213> ORGANISM: Human
35 <220> FEATURE:
36 <221> NAME/KEY: CHAIN
37 <222> LOCATION: (1)..(119)
38 <223> OTHER INFORMATION: Mature MP52
40 <300> PUBLICATION INFORMATION:
41 <301> AUTHORS: MAKISHIMA, Fusoa
42 TAKAMATSU, Hiroyuki
43 MIKI, Hideo
44 KAWAI, Shinji
45 KIMURA, Michio
46 MATSUMOTO, Tomoaki
47 KATSUURA, Mieko
48 ENOMOTO, Koichi
65 O 00/21998 PCT/IB99/01621
67 2
69 SATOH, Yusuke
70 <302> TITLE: Novel protein and process for producing the same.
71 <310> PATENT DOC NO: WO 96/33215
W--> 72 <312> PUBLICATION DATE: 1996-1-0-24 → 10?
73 <313> RELEVANT RESIDUES: 1 TO 119
75 <400> SEQUENCE: 1
77 Pro Leu Ala Thr Arg Gln Gly Lys Arg Pro Ser Lys Asn Leu Lys Ala
E--> 78 1 5 10 15

→ misaligned amino
acid numbering
See error summary
sheet, item 3

RAW SEQUENCE LISTING

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Input Set : A:\447.001.txt

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```

80  Arg Cys Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp Met Gly Trp
81          20                25                30
83  Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu
84          35                40                45
86  Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His
87          50                55                60
89  Ala Val Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro
90          65                70                75                80
92  Pro Thr Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe
93          85                90                95
95  Ile Asp Ser Ala Asn Asn Val Val Tyr Lys Gln Tyr Glu Asp Met Val
96          100               105               110
98  Val Glu Ser Cys Gly Cys Arg
99          115

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101 <210> SEQ ID NO: 2

102 <211> LENGTH: 114

103 <212> TYPE: PRT

104 <213> ORGANISM: Human

W--> 123 WO 00/21998 PCT/IB99/01621 → delete

W--> 125 3

128 <220> FEATURE:

129 <221> NAME/KEY: CHAIN

130 <222> LOCATION: (1)..(114)

131 <223> OTHER INFORMATION: Mature BMP-2

133 <300> PUBLICATION INFORMATION:

134 <301> AUTHORS: WANG, Elizabeth A.

135 Wozney, John M.

136 ROSEN, Vicki A.

137 <302> TITLE: Novel osteoinductive compositions.

138 <310> PATENT DOC NO: WO 88/00205

139 <312> PUBLICATION DATE: 1988-01-14

140 <313> RELEVANT RESIDUES: 1 TO 114

142 <400> SEQUENCE: 2

144 Gln Ala Lys His Lys Gln Arg Lys Arg Leu Lys Ser Ser Cys Lys Arg

145 1 5 10 15

147 His Pro Leu Tyr Val Asp Phe Ser Asp Val Gly Trp Asn Asp Trp Ile

148 20 25 30

150 Val Ala Pro Pro Gly Tyr His Ala Phe Tyr Cys His Gly Glu Cys Pro

151 35 40 45

153 Phe Pro Leu Ala Asp His Leu Asn Ser Thr Asn His Ala Ile Val Gln

E--> 154 50 55 60E--> 156 Thr Leu Val Asn Ser Val Asn Ser Lys Ile Pro Lys Ala Cys Cys Val

E--> 157 65 70 75 80

159 Pro Thr Glu Leu Ser Ala Ile Ser Met Leu Tyr Leu Asp Glu Asn Glu

E--> 160 85 90 95

162 Lys Val Val Leu Lys Asn Tyr Gln Asp Met Val Val Glu Gly Cys Gly

163 100 105 110

E--> 164 Cys Arg

181 WO 00/21998PCT/IB99/01621 → delete↑ invalid amino
acid designator→ amino acid
numbering
misaligned
- same error

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/806,368A

DATE: 04/22/2002

TIME: 14:21:00

Input Set : A:\447.001.txt

Output Set: N:\CRF3\04222002\I806368A.raw

E--> 184

187 <210> SEQ ID NO: 3
 188 <211> LENGTH: 116
 189 <212> TYPE: PRT
 190 <213> ORGANISM: Human
 192 <220> FEATURE:
 193 <221> NAME/KEY: CHAIN
 194 <222> LOCATION: (1)..(116)
 195 <223> OTHER INFORMATION: Mature BMP-4
 197 <300> PUBLICATION INFORMATION:
 198 <301> AUTHORS: WOZNEY, John M.
 199 ROSEN, Vicki
 200 CELESTE, Anthony J.
 201 MITSOCK, Lisa M.
 202 WHITTERS, Matthew J.
 203 KRIZ, Ronald W.
 204 HEWICK, Rodney M.
 205 WANG, Elizabeth A.
 206 <302> TITLE: Novel regulators of bone formation molecular clones
 207 and activities.
 208 <303> JOURNAL: Science
 209 <304> VOLUME: 242
 210 <305> ISSUE: 4885
 211 <306> PAGES: 1528-1534
 212 <307> DATE: 1988-12-16
 213 <308> DATABASE ACCESSION NO: Genbank/M22490
 214 <313> RELEVANT RESIDUES: 1 TO 116

W--> 216 <300> PUBLICATION INFORMATION: 3

217 Ser Pro Lys His His Ser Gln Arg Ala Arg Lys Lys Asn Lys Asn Cys
 218 1 5 10 15

E--> 220 Arg Arg His Ser Leu Tyr Val Asp Phe Ser Asp Val Gly Trp Asn Asp
 E--> 221 20 25 30

223 Trp Ile Val Ala Pro Pro Gly Tyr Gln Ala Phe Tyr Cys His Gly Asp
 E--> 224 35 40 45

239 WO 00/21998 PCT/IB99/01621 → delete

E--> 241 5
 244 Cys Pro Phe Pro Leu Ala Asp His Leu Asn Ser Thr Asn His Ala Ile

E--> 245 50 55 60 → modif amino acid designator!

E--> 247 Val Gln Thr Leu Val Asn Ser Val Asn Ser Ser 71 e Pro Lys Ala Cys

E--> 248 65 70 75 80

250 Cys Val Pro Thr Glu Leu Ser Ala Ile Ser Met Leu Tyr Leu Asp Glu

E--> 251 85 90 95

253 Tyr Asp Lys Val Val Leu Lys Asn Tyr Gln Glu met Val Val Glu Gly

E--> 254 100 105 110

256 Cys Gly Cys Arg

E--> 257 115

259 <210> SEQ ID NO: 4

261 <211> LENGTH: 139

262 <212> TYPE: PRT

4 - delete

3097 - database entry date is required - per Sect 1.823 of the new Rule.

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/806,368A

DATE: 04/22/2002

TIME: 14:21:00

Input Set : A:\447.001.txt

Output Set: N:\CRF3\04222002\I806368A.raw

263 <213> ORGANISM: Human
 265 <220> FEATURE:
 267 <221> NAME/KEY: CHAIN
 268 <222> LOCATION: (1)..(139)
 269 <223> OTHER INFORMATION: Mature BMP-7
 271 <300> PUBLICATION INFORMATION:
 273 <301> AUTHORS: OZKAYNAK, Engin
 274 RUEGER, David C.
 275 DRIER, Eric A.
 276 CORBETT, Clare
 277 RIDGE, Richard J.
 278 SAMPATH, Kuber T.
 279 OPPERMANN, Hermann
 280 <302> TITLE: OP-1 cDNA encodes an osteogenic protein in the TGF-beta
 281 family.
 294 WO 00/21998 PCT/IB99/01621
 296 6
 300 <303> JOURNAL: EMBO J.
 301 <304> VOLUME: 9
 302 <305> ISSUE: 7
 303 <306> PAGES: 2085-2093
 304 <307> DATE: 1990
 305 <308> DATABASE ACCESSION NO: EM13L data library/X51801
 306 <313> RELEVANT RESIDUES: 1 TO 139
 W--> 308 <300> PUBLICATION INFORMATION: 4 → requires <3097, same error as on p.3
 310 Ser Thr Gly Ser Lys Gln Arg Ser Gln Asn Arg Ser Lys Thr Pro Lys
 311 1 5 10 15
 E--> 313 Asn Gln Glu Ala Leu Arg Met Ala Asn Val Ala (G7-u) Asn Ser Ser Ser
 314 20 25 30
 316 Asp Gln Arg Gln Ala Cys Lys Lys His Glu Leu Tyr Val Ser Phe Arg
 317 35 40 45
 319 Asp Leu Gly Trp Gln Asp Trp Ile Ile Ala Pro Glu Gly Tyr Ala Ala
 320 50 55 60
 322 Tyr Tyr Cys Glu Gly Glu Cys Ala Phe Pro Leu Asn Ser Tyr Met Asn
 E--> 323 65 70 75 80 → misaligned
 325 Ala Thr Asn His Ala Ile Val Gln Thr Leu Val His Phe Ile Asn Pro
 E--> 326 85 90 95 → numbenry.
 328 Glu Thr Val Pro Lys Pro Cys Cys Ala Pro Thr Gln Leu Asn Ala Ile
 E--> 329 100 105 110 → some error
 331 Ser Val Leu Tyr Phe Asp Asp Ser Ser Asn Val Ile Leu Lys Lys Tyr
 E--> 332 115 120 125
 334 Arg Asn Met Val Val Arg Ala Cys Gly Cys His
 E--> 335 130 135
 350 (WO 00/21998) (7) (PCT/IB99/01621) delete
 E--> 352
 355 <210> SEQ ID NO: 5
 357 <211> LENGTH: 119
 358 <212> TYPE: PRT
 359 <213> ORGANISM: Human

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/806,368A

DATE: 04/22/2002

TIME: 14:21:00

Input Set : A:\447.001.txt

Output Set: N:\CRF3\04222002\I806368A.raw

361 <220> FEATURE:

363 <221> NAME/KEY: CHAIN

364 <222> LOCATION: (1)..(119)

365 <223> OTHER INFORMATION: Mature MP52 protein. Note : 30th, 71st, 74th and
366 111th Met are modified to met sulfoxide.

368 <400> SEQUENCE: 5

E--> 370 Pro Leu Ala Thr Arg Gln Gly Lys Arg Pro Ser Lys Asn Leu Lys Ala
 371 1 5 10 15
 373 Arg Cys Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp Met Gly Trp
 374 20 25 30
 376 Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu
 377 35 40 45
 379 Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His
 380 50 55 60
 382 Ala Val Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro
 383 65 70 75 80
 385 Pro Thr Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe
 386 85 90 95
 388 Ile Asn Ser Ala Asn Asn Val Val Tyr Lys Gln Tyr Glu Asp Met Val
 389 100 105 110
 391 Val Glu Ser Cys Gly Cys Arg
 392 115

*invalid amino
acid designate*

407 WO 00/21998

PCT/IB99/01621

- delete

E--> 409

8

411 <210> SEQ ID NO: 6

412 <211> LENGTH: 119

413 <212> TYPE: PRT

414 <213> ORGANISM: Human

416 <220> FEATURE:

417 <221> NAME/KEY: CHAIN

418 <222> LOCATION: (1)..(119)

419 <223> OTHER INFORMATION: Mature MP52 protein. Note : 30th and/or 71st
420 and/or 74th and/or 111th met are modified to
421 s-carboxymethyl Met.

423 <400> SEQUENCE: 6

425 Pro Leu Ala Thr Arg Gln Gly Lys Arg Pro Ser Lys Asn Leu Lys Ala
 426 1 5 10 15
 428 Arg Cys Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp Met Gly Trp
 429 20 25 30
 431 Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu
 432 35 40 45
 434 Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His
 435 50 55 60
 437 Ala Val Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro
 438 65 70 75 80
 440 Pro Thr Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe
 441 85 90 95
 443 Ile Asp Ser Ala Asn Asn Val Val Tyr Lys Gln Tyr Glu Asp Met Val
 444 100 105 110

RAW SEQUENCE LISTING

DATE: 04/22/2002

PATENT APPLICATION: US/09/806,368A

TIME: 14:21:00

Input Set : A:\447.001.txt

Output Set: N:\CRF3\04222002\I806368A.raw

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446      Val Glu Ser Cys Gly Cys Arg
447              115
464      WO 00/21998                      PCT/IB99/01621
E--> 466                      9
469 <210> SEQ ID NO: 7
470 <211> LENGTH: 119
471 <212> TYPE: PRT
472 <213> ORGANISM: Human
474 <220> FEATURE:
475 <221> NAME/KEY: CHAIN
476 <222> LOCATION: (1)..(119)
477 <223> OTHER INFORMATION: Mature MP52 protein. Note :32nd and 35th Trp are
478      modified to allylsulphenyl Trp.
480 <400> SEQUENCE: 7
E--> 482      Pro Leu Ala Thr Arg (Gln) Gly Lys Arg Pro Ser Lys Asn Leu Lys Ala
483              1              5              10              15
485      Arg Cys Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp Met Gly Trp
486              20              25              30
488      Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe His Cys Glu
489              35              40              45
491      Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro Thr Asn His
492              50              55              60
E--> 494      Ala Val Ile (Gln) Thr Leu Met Asn Ser Met Asp Pro Glu Ser Thr Pro
495              65              70              75              80
497      Pro Thr Cys Cys Val Pro Thr Arg Leu Ser Pro Ile Ser Ile Leu Phe
498              85              90              95
E--> 500      Ile Asp Ser Ala Asn Asn Val Val Tyr Lys (Gln) Tyr Glu Asp Met Val
501              100              105              110
503      Val Glu Ser Cys Gly Cys Arg
504              115

```

delete

circled items
are invalid
amino acid
designators!

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 04/22/2002
PATENT APPLICATION: US/09/806,368A TIME: 14:21:01

Input Set : A:\447.001.txt
Output Set: N:\CRF3\04222002\I806368A.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:2; Line(s) 162

VERIFICATION SUMMARY

DATE: 04/22/2002

PATENT APPLICATION: US/09/806,368A

TIME: 14:21:01

Input Set : A:\447.001.txt

Output Set: N:\CRF3\04222002\I806368A.raw

L:6 M:259 W: Allowed number of lines exceeded, (1) GENERAL INFORMATION:
L:8 M:259 W: Allowed number of lines exceeded, (1) GENERAL INFORMATION:
L:20 M:270 C: Current Application Number differs, Replaced Application Number
L:21 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:72 M:256 W: Invalid Numeric Header Field, Wrong PUBLICATION DATE:YYYY-MM-DD
L:78 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:1
L:123 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:125 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:154 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2
L:156 M:330 E: (2) Invalid Amino Acid Designator, NUMBER OF INVALID KEYS:1
M:332 Repeated in SeqNo=2
L:216 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:3
L:220 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:3
M:332 Repeated in SeqNo=3
L:247 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:247 M:330 E: (2) Invalid Amino Acid Designator, NUMBER OF INVALID KEYS:1
L:308 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:4
L:313 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:313 M:330 E: (2) Invalid Amino Acid Designator, NUMBER OF INVALID KEYS:1
L:323 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:4
M:332 Repeated in SeqNo=4
L:370 M:330 E: (2) Invalid Amino Acid Designator, NUMBER OF INVALID KEYS:1
L:409 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:5
L:466 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:6
L:482 M:330 E: (2) Invalid Amino Acid Designator, NUMBER OF INVALID KEYS:1
L:494 M:330 E: (2) Invalid Amino Acid Designator, NUMBER OF INVALID KEYS:1
L:500 M:330 E: (2) Invalid Amino Acid Designator, NUMBER OF INVALID KEYS:1

PC T09

SERIAL NUMBER: 09/806,368A

AMC/MH – Biotechnology Systems Branch – 08/21/2001